

REMARKS

Claims 1-28 are pending. Claim 26 has been amended to depend on claim 25, instead of claim 1 in order to provide a proper antecedent basis to “remaining solvent.” Descriptive support for the amendments can be found at least in page 60, line 24 to page 61, line 6; page 64, lines 12-17; and page 65, lines 13-24 of the specification. No new matter has been introduced.

Claim Rejection Under 35 U.S.C. §112

Claim 26 was rejected under 35 U.S.C. §112, second paragraph for insufficient antecedent basis for the term “remaining solvent.” Claim 26 has been amended to depend on claim 25, which recites “wherein the near-infrared ray absorption layer comprises a remaining solvent.” Applicants respectfully submit that claim 26 is in compliance with the requirement of 35 U.S.C. § 112, second paragraph. Withdrawal of the rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §103

I. Rejections of claims 1-4, 9 and 13

Claims 1-4, 9 and 13 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. 2002/0127395 (“Kuwabara”) in view of Inno et al. (U.S. 6,083,664). Applicants traverse the rejections.

The near-infrared ray absorption layer of the claimed invention comprises a composition containing a near-infrared ray absorbing dye having a maximum absorption in a range of 800 nm in wavelength to 1,200 nm in wavelength, a resin, and a surfactant having an HLB in a range of 2 to 12 in an amount of 0.01% to 2.0% by mass.

Applicants respectfully submit that a prima facie case of obviousness has not been established because Neither Kuwabara nor Inno discloses a near-infrared ray absorption layer comprising a composition containing a surfactant having an HLB in a range of 2 to 12. As the Office Action acknowledges, Kuwabara fails to “disclose a composition containing silicone-type surfactant having an HLB in a range of 2 to 12 is contained at 0.01% to 2.0% by mass in the composition.” Office Action, page 3, the bottom paragraph. The Office Action (page 4, the first paragraph) then relies on Inno for the disclosure of the use of a nonionic silicone-type surfactant

with an HLB of 6 to 11. Inno, however, does not teach or suggest that a surfactant with an HLB of 6 to 11 is contained *in a near-infrared ray absorption layer*, as recited in instant claims 1 and 13.

Inno discloses a planographic printing plate comprising a substrate, a first layer, and a second layer (i.e. the ink-repellant layer), wherein the first layer contains light-heat conversion material that converts laser light to heat and enables peeling of portions of the second layer (col. 2, lines 59-66). After exposure to a laser, the surface of the second layer is rubbed by a rubbing member in the presence of an aqueous solution (the “treating solution”) to remove laser-exposed portions of the second layer (i.e. the ink-repellant layer). Inno, col. 2, line 66 to col. 3, line 4; . 9, lines 47-55; col. 11, lines 5-33. The light-heat conversion material in the first layer of Inno may be infrared absorption dyes (col. 4, lines 4-16). Inno further discloses that a surfactant with an HLB of 6 to 11 may be contained in the “treating solution,” i.e., the solution used in rubbing the surface of the second layer to remove the laser-treated portions of the second layer (col. 9, lines 47-55; col. 11, lines 5-33). Therefore, in the printing plate of Inno, the infrared absorption dyes are contained in the first layer while the surfactant with an HLB of 6 to 11 is contained in the treating solution for rubbing the surface of the second layer. In other words, Inno does not teach or suggest a near-infrared ray absorption layer comprising a composition containing both a near-infrared ray absorbing dye and a surfactant having an HLB in a range of 2 to 12, as recited in claims 1 and 13.

Further, there is no motivation to modify the composition of Kuwabara by including a surfactant with an HLB of 6 to 11 of Inno in the composition of Kuwabara. The Office Action (page 4, lines 6-7) states that “Inno et al. teach the nonionic silicone-type surfactant aid in adhesion property of the surface (col. 11, lines 39-47).” Inno discloses in col. 11, lines 38-43: “when the amount of the nonionic surfactant is less than 0.01% by weight, ... re-adhesion, onto the surface of the plate, of the removed portions of the second layer (refuse) corresponding to the laser-exposed portions can sometimes not be prevented.” Thus, the nonionic surfactant in Inno was used to *prevent re-adhesion* of the removed portions of the second layer onto the surface of the printing plate. Because the disclosure of Kuwabara does not involve removing portions of a second layer of a printing plate, *prevention of re-adhesion* of the removed portions of the second layer onto the surface of the plate is irrelevant. One of ordinary skill in the art would not have

been motivated to modify the composition of Kuwabara with a surfactant with an HLB of 6 to 11 of Inno.

In summary, Kuwabara and Inno fail to teach or suggest a near-infrared ray absorption layer that comprises a composition containing a near-infrared ray absorbing dye having a maximum absorption in a range of 800 nm in wavelength to 1,200 nm in wavelength, a resin, and a surfactant having an HLB in a range of 2 to 12. Also, there is no motivation to combine Kuwabara and Inno. For at least these reasons, Claims 1-4, 9 and 13 would not have been obvious over Kuwabara in view of Inno. Withdrawal of the rejections is respectfully requested.

II. Rejections of claims 5-8, 10-12, 14-16, and 24 under 35 U.S.C. §103

Claim 5 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claim 1-4, 9 and 13, and further in view of JP 2004-202899 (“Sato”). Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of U.S. Patent No. 6,703,138 (“Taki”). Claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of U.S. Patent Application Publication No. 2003/0186040 (“Oya”). Claims 10 and 24 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of U.S. Patent Application Publication No. 2003/0021935 (“Moriwaki”). Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of Japanese Patent Application 2003-127310 (“Kumano”). Claim 14 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of U.S. Patent No. 6,770,430 (“Kubo”). Claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13, and further in view of U.S. Patent Application Publication No. 2004/0071883 (“Ogawa”). Applicants traverse the rejections.

For the reasons stated above, claims 1 and 13, from which claims 5-8, 10-12, 14-16, and 24 depend, are not obvious over Kuwabara in view of Inno. The deficiency of Kuwabara in view of Inno is not cured by any one of Sato, Taki, Oya, Moriwaki, Kumano, Kubo, and Ogawa because none of these references discloses a near-infrared ray absorption layer that comprises a composition containing a near-infrared ray absorbing dye and a surfactant having an HLB in a range of 2 to 12, as recited in instant claims 1 and 13. Claims 5-8, 10-12, 14-16, and 24 would not have been obvious over Kuwabara in view of Inno, or further in view of Sato, Taki, Oya, Moriwaki, Kumano, Kubo, or Ogawa. Withdrawal of the rejections is respectfully requested.

III. Rejections of claims 17-19 under 35 U.S.C. §103(a)

Claim 17 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno and further in view of Kumano. Claim 18 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claim 17 above, and further in view of U.S. Patent No. 4,948,635 (“Iwasaki”). Claim 19 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claim 17, and further in view of Ogawa. Applicants traverse the rejections.

For the reasons stated above, Kuwabara in view of Inno fails to teach or suggest a process for preparing a near-infrared ray absorption roll using a coating solution containing, among other things, a near-infrared ray absorption dye and a surfactant having an HLB in the range of 2 to 12, as recited in independent claim 17. The deficiency of Onomichi in view of Ito is not cured by any one of Kumano, Iwasaki, and Ogawa at least because none of these references teaches or suggests coating a transparent substrate film with a coating solution containing a near-infrared ray absorption dye, a resin, a surfactant having an HLB in the range of 2 to 12, and an organic solvent.

Therefore, withdrawal of the rejections is respectfully requested.

IV. Rejections of claims 20-23 under 35 U.S.C. §103(a)

Claims 20 and 21 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1 and 13, and further in view of

Iwasaki. Claim 22 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al., and further in view of Ogawa. Claim 23 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claim 20, and further in view of Kubo. Applicants traverse the rejections.

As discussed above, Kuwabara in view of Inno fails to teach or suggest a process for preparing a near-infrared ray absorption roll using a coating solution containing, among other things, a near-infrared ray absorption dye and a surfactant having an HLB in the range of 2 to 12, as recited in independent claim 20. The deficiency of Onomichi in view of Ito is not cured by any of Iwasaki, Ogawa, and Kubo at least because none of them teaches or suggests a process of preparing a near-infrared ray absorption roll using a coating solution containing a near-infrared ray absorption dye and a surfactant having an HLB in the range of 2 to 12, as recited in claim 20.

Therefore, withdrawal of the rejections is respectfully requested.

V. Rejections of claims 26-27 under 35 U.S.C. §103(a)

Claims 26-27 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claims 1-4, 9 and 13 above, and further in view of Shouji et al. (U.S. Patent No. 5,691,838). Applicants traverse the rejections.

For the reasons stated above, claims 1 and 13, from which claims 26 and 27 depend, are not obvious over Kuwabara in view of Inno. The deficiency of Onomichi in view of Ito is not cured by Shouji because Shouji does not disclose, explicitly or implicitly, a near-infrared ray absorption layer comprising a surfactant having an HLB in a range of 2 to 12, as recited in present claims 26 and 27. Claims 26 and 27 would not have been obvious over Kuwabara in view of Inno, and further in view of Shouji. Withdrawal of the rejections is respectfully requested.

VI. Rejections of claim 25 under 35 U.S.C. §103(a)

Claim 25 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kuwabara in view of Inno et al. as applied to claim 1, and further in view of Hanada et al. (U.S. Patent No. 6,734,946). Applicants traverse the rejections.

For the reasons stated above, claim 1, from which claim 25 depends, is not obvious over Kuwabara in view of Inno. The deficiency of Onomichi in view of Ito is not cured by Hanada

because Hanada does not disclose, explicitly or implicitly, a near-infrared ray absorption layer comprising a surfactant having an HLB in a range of 2 to 12, as recited in present claim 1. Therefore, claim 25 would not have been obvious over Kuwabara in view of Inno, and further in view of Hanada. Withdrawal of the rejections is respectfully requested.

CONCLUSION

The Examiner is encouraged to contact the undersigned regarding any questions concerning this amendment. In the event that the filing of this paper is deemed not timely, applicants petition for an appropriate extension of time. The Commissioner is authorized to debit Deposit Account No. 11-0600 the petition fee and any other fees that may be required in relation to this paper.

Respectfully submitted,

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